

Static Pressure Controller

- Air Pressure Sensing Switch
- For Use with POC and RPOC Dampers
- Adjustable Air Switch Set Point Range

GENERAL DESCRIPTION

The **SPC** is a static pressure switch designed to sense positive pressure in the plenum for the purpose of controlling the modulating bypass position.

The plastic housing contains a diaphragm, a calibration spring and a snap-acting SPDT switch. The sample line connections located on each side of the diaphragm accept flexible tubing. The clear cover guards against accidental contact with the live switch terminal connections and the set point adjusting knob.

Pitot tube (air probe) for mounting in tubing and flexible poly tubing included with each SPC.

Mounting

Select a mounting location which is free from vibration. The **SPC** must be mounted with the diaphragm in any vertical plane in order to obtain the lowest specified operating set point. Mount with the sample line connections in the "DOWN" position. Use standard sheet metal screws through at least two of the four mounting holes.

Air Sample Connection

The **SPC** is designed to accept flexible tubing by means of 1/4" slip-on connections. A 12" piece of 1/4" ID Flexible tubing is included with the SPC as well as a Pitot Tube for mounting in the plenum. Locate the sampling probe a minimum of 2 feet downstream from the air source. Install the sampling probe as close to the center of the airstream as possible. Do not allow supply pressure to blow directly into the Pitot Tube. Connect the provided flexible tubing to the **High-Pressure Inlet** as shown on back page.



Technical Data

Set Point Range	.20" w.c. to 2.00" w.c.
Pressure Connections	P1 (+) High Pressure P2 (-) Low Pressure
Switching Differential	20Pa (0.08" w.c.)
Maximum Pressure	10KPa
Operating Temperature	-4 Deg F to +140 Deg F
Electrical Rating	1.0 Amp MAX
Contact Arrangement	SPDT
Electrical Connections	1 NO - Operating Contact 2 NC - Break Contact 3 COM - Power Supply
Cable Connection	1/2" Gland Connector
Sample Line Connections	1/4" ID Tubing
Weight	5.6 Oz

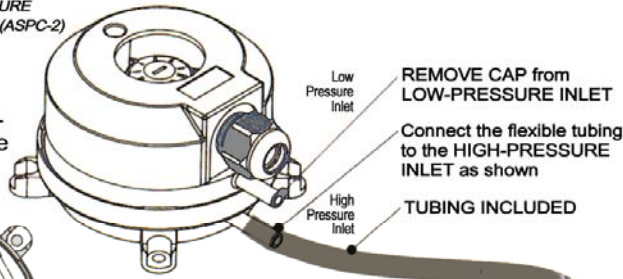
BYPASS Setup

Static Pressure Controlled Bypass (MODULATING)

Mounting

Mount with the sample line connections in the "DOWN" position. Use screws & stand-offs through at least two of the four mounting feet holes (as shown below).

STATIC PRESSURE CONTROLLER (ASPC-2)



Air Probe (Pitot Tube)

Locate the air probe (pitot tube) at least



2 FEET AIRFLOW downstream from the air source, preferably as close to the center of the airstream as possible.

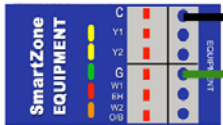


DO NOT allow supply air pressure to blow directly into the pitot tube

Wiring



Pressure inlets pointing down



Use 18 Gauge solid core wire & matching spade connectors (included)

WORKS WITH 3-WIRE POWER CLOSE POWER OPEN ROUND OR RECTANGULAR

Modulating Bypass Configuration

The goal is to calibrate the bypass damper so that it is "barely" staying closed when all zones are open. This will cause the bypass damper to open if supply dampers close and the plenum pressure increases.

1 Make a call from ALL zones for cooling so all zone dampers are fully open AND the equipment fan (blower) is running at the HIGHEST speed.

2 Turn knob clockwise SLOWLY until the bypass damper motor starts closing.

If damper starts opening again before fully closing, turn the knob clockwise SLOWLY until it starts closing again. Repeat this process until the damper is fully closed.

3 VERY slowly turn the knob counterclockwise until the bypass damper motor starts to open.

4 Just as soon as the motor starts to run open, turn the knob back clockwise just enough that the damper motor stays closed.

To test if bypass is sized and configured properly, make a call ONLY from the smallest zone for cooling with the fan at the HIGHEST speed; the BYPASS damper should fully or almost fully open within 1 to 2 minutes.

